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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

OPIUM INTOXICATION.

Address before the "American Association for the Cure of Inebriates," at Binghampton Asylum, New York.

BY JOSEPH PARRISH, M. D., PRESIDENT OF THE ASSOCIATION.

Reported by T. D. Crothers, M. D., Albany, N. Y.
(Continued from No. 872.)

The question is often asked whether it is best that patients of this class should be deprived at once of their usual supply, or whether the quantity should be gradually diminished. I am aware that there is a diversity of opinion upon this subject among practitioners who have given special attention to this class of diseases, but I have no hesitation in expressing an opinion, which has settled into a fixed judgment with me, that for the class of cases with which I have had to do the system of gradual reduction has answered so well that I cannot bring myself to adopt the other plan. Among the reasons for the practice I advocate, I may mention the following:—

Patients who present themselves for treatment for this disease are almost invariably greatly reduced in strength, so that the power of physical endurance is very much diminished, and the moral courage diminished to such a degree that they are timid beyond expression, and hesitate to meet the trial which they know must be endured in an attempt at recovery. It is of the utmost importance that the patient and his medical adviser should act in perfect accord, and it is the part of the physician to secure, if possi-

ble, the confidence of his patient, by an intelligent description of his case, and by an assurance that the treatment will be as painless as it is possible to make it. Such an assurance inspires the timid and struggling victim with at least a willingness to make the effort, and my experience has been that the mutual confidence thus established secures not only a good basis for beginning the treatment, but that the patient himself very seldom violates the trust. Aside from this moral consideration, I think there is a strong physical and professional reason in favor of the gradual plan, namely, the avoidance of the shock which must necessarily follow an immediate withdrawal.

I do not quite realize the soundness of the logic which asserts that because the patient has poisoned himself with opium, the first duty is to entirely remove it, for the reason already adverted to in the proposition which I announced in the beginning, as having an important bearing upon the pathology and treatment of this disease, viz: that we should discriminate between the poison itself and its physiological effect, and that a poison is not necessarily poisonous, except in unofficinal doses, or unless its use is contra-indicated by the condition of the patient.

Take, for example, a case to which I have already alluded. A man who took sixty grains of sulphate of morphia at a single dose, or two hundred and forty doses in one. He had been in the habit of relying upon this enormous quantity for months, having commenced, of course, years before with fractions of a grain. Do you not suppose that the sudden abstraction from his nerv-

ous system of this support would have produced a shock, which, without actual confinement to a cell, he would have been unable to endure, and that compulsory endurance would have so aroused a resistant, not to say a resentful spirit, as would have greatly disturbed the moral equipoise, the preservation of which is so important to the cure?

A very interesting question is, What became of all the morphia that was taken into his system?

The mode of administration in this case insured its very intimate and thorough mingling with the circulation. If any of it was passed off by the rectum or kidneys, it would be only after passing more or less completely through the whole system. Did it go to form liquid? and if not in what form was it passed from the body? Could it be that the skin, hardened and changed by the frequent process of cicatrization, failed to absorb the salt, and some of it, at least, was thrown out as the product of inflammation in the various abscesses with which he was at times troubled? The morphia was gradually becoming more and more tardy in its action, and only when the needle was accidentally inserted into a small vein, and he had the sinking sensation already alluded to, was it at all speedy in its effects. Fully a half hour would elapse before he would feel, as he said, the "pleasant effects of the morphia." Was it that the economy and particularly the nervous system, physiologically so sensitive to this poison, had become blunted to its action, and only after a long contact and intimate absorption would show any response to the stimulus of this powerful drug. Sixty grains of morphia would equal, at lowest calculation, two hundred and forty grains of opium, and this multiplied by the difference in strength by subcutaneous injection, would make a total of seven hundred and twenty grains of opium in twenty-four hours.

What became of this immense amount of poisonous narcotic is quite a problem. It is much to be regretted that in the excitement attending his severe illness it was not thought of to examine his fecal and urinary discharge.

I once saw a man in the Eastern Penitentiary of Pennsylvania, who was subjected, under the rigid regime of prison order, to pass through the torment of this heroic and dangerous practice. He was a gentleman,

by birth and culture, and under the temporary mental perversion produced by this habit, committed an offence for which he was sentenced to imprisonment. I visited him in his cell, and examined his case with some care. His pulse was rapid, and his vital functions were sluggishly performed. As an aspen whose leaves tremble under the slightest impulse of air, so this cultivated belles-lettres student and teacher moved in every tendril, under the gentlest impulse of his emotional nature. He had been three months in confinement, from the first hour of which his tobacco and opium had been entirely withdrawn. He was a wreck from shock; shock of nerve and shock of moral sense. He writhed under a mental conviction of injustice and injury, and his feeble frame attempted in vain to recover its normal balance. After his sentence expired, and he found himself in the world again, among his first efforts was to procure the drug that had been his solace in times ago. He made me a visit soon after, and with a comparatively clear head, confessed that he was in the daily use of it again. Had he been supported by strong nerve tonics while the opium was gradually withdrawn, and fed on better than ordinary prison fare, with proper exercise out of doors, he would doubtless have had a firmer muscle, a more steady nerve, and a purer moral sentiment, which might have sustained him in the conflict of life, without resorting again to opium.

From the history of cases I have treated, I am led to believe that my patients first used opium as a necessity. The single exceptional case I have already given; that of the public man who commenced it for the purpose of enabling him to command popularity as an orator. This would seem to have been reprehensible.

The others I now recall were those in whom, as in the case of incipient phthisis, and of the fracture of the pelvis, there was a physical demand for its use, and in whom it at first fulfilled its physiological purpose. Hence in the treatment, I have endeavored to withhold what I may be allowed to call the pathological, that I may speedily reach the physiological dose, and then to endeavor to restore the system to its capacity to maintain its functions without opium. I will illustrate what I mean by the sixty-grain case, cited above. The first dose I administered to this patient after witnessing him

take his usual dose of one drachm, was one-half of his daily quantity (thirty grains). He endured this reduction with but little inconvenience. After that the reduction was measured by the amount of suffering consequent upon its withdrawal. I determined to get him through with as little pain as possible, and after this reduced about five grains daily, building up all the time with strychnia and belladonna, good diet, frictions, exercise, and vapor baths.

But when we reached five, three, two grains, and then came to one, and the fractions, the suffering was sometimes so great, that to secure temporary rest and sleep I occasionally prescribed a full dose, say three or four grains, to induce sleep. A good night's rest gave courage and force to endure again, and the patient within three months was entirely recovered, and resumed the practice of his profession.

In the case of the orator, where the intellectual functions were specially to be dealt with, an exalted mental state to be calmed and brought to a normal standard, the struggle was more severe, and the distress much greater. In this case the whole moral nature seemed to have been invaded by the poison, and though the gentleman was scrupulously correct in deportment, conscientious and sensitive to a degree, never indulging in even what are called innocent vices, a man of family and of virtue, the relapse from an imaginary to a real world, from a state of chronic exaltation among spheres where fancy feeds upon itself and encircles thought with the halo of its own inspiration, to the actualities of real life, was a more painful process than I have ever witnessed. It was capturing a winged spirit that had escaped to dwell in unknown spheres, and confining it again with material chords; holding it to this life, as it were, by force. The patient himself was powerless; the things that he would not he did, and the things that he would he did not.

While the difficulty in this case was largely psychological, cramps in the lower extremities, and prostration, with coldness, were prominent symptoms of the physical struggle.

The few cases I have briefly cited are typical of thousands more. They are coming to the surface daily; concealment of facts, especially the facts of suffering, cannot be long protracted. What is true of the single individual, is true of the many. Secret in-

dulgence in opium use will culminate in open evidences, and the facts must be deliberately and intelligently met by the medical profession, and by those in charge of Inebriate asylums. Chronic opium poisoning will doubtless become, like chronic alcoholic poisoning, a matter for the philanthropist and statesman, but the physician must lay the fact foundation first. It is not my intention at this time to discuss the relation that exists between these two common forms of excess. I do not say they are identical in constitutional origin, or in public importance; but I believe the opium habit to be more seductive, and more damaging than the liquor habit, to a class of minds which is the most valuable to the nation. Not a single case that I have treated has been of low mental state; physicians, lawyers, ministers and merchants have made up most of my roll of cases. Two of those cited in this discourse were physicians, and the third an eminent lawyer. Such cases as I have described are gradually emerging from their seclusion and finding their way to our asylums. They come as alcoholic inebriates come, impelled by a sense of need for relief, without considering the causes which led to their first departure. The question of personal responsibility, or of social relation, is not a question which such persons are for the time being able to discuss or even consider, neither should they be reproached by a thoughtless world.

But few men know the terrors of those who are thus diseased. But few can appreciate the torment of a sensitive moral nature, that by reason of its very sensitiveness has yielded to the bondage of appetite. But few apprehend the physical demand for composure, and even oblivion, which haunts a restless, nerve-worn nature; and many more should be willing to shield a brother's infirmity with the same covering of charity which they would themselves desire under a similar invincible pressure.

Did time permit, I would be glad to discuss the question of cause, but that I may not be misunderstood in what I have said, I will close by a brief summary of the facts and practice I have endeavored to present to you.

1. Opium is a poison.
2. Men take it, not for social enjoyment, but for a physical necessity.
3. Taken thus in proper doses, and in corresponding conditions, it is a valuable reme-

dy. When it relieves physical or mental distress it fulfills its physiological purpose, and its use is legitimate.

4. It is a fascinating drug in its influence upon both mind and body, with persons who have not an opposing idiosyncrasy.

5. There is a constitutional condition which is in harmony with its hypnotic quality, and a constitutional condition which is in harmony with its excitant quality.

6. It will affect persons differently, as they are inclined by nature, or by the pathological condition which demands its use.

7. Taken in excess, it produces a diseased condition, certain symptoms of which are decided and specific.

8. To relieve the symptoms it is desirable to avoid the shock, as it is desirable to avoid it in surgical operations.

9. For this purpose the practitioner should immediately reduce the accustomed supply to the minimum dose which will meet this condition.

10. When the minimum is reached, the suffering of the patient begins, and then the practice should be to give tone to the nervous system, as the opium stimulus is withdrawn. The reduction should be in minute quantities and the tonic doses full and persistent.

11. The moral sentiment, the confidence and courage of the patient, should at all times be kept up to the attainable degree.

12. Such a course will almost always secure the desired result.

MEDICAL OBSERVATIONS IN PARIS.

BY FRED. HORNER, JR., M. D.,
Of Virginia.

Hotel Dieu, Paris. This celebrated Hospital occupies a situation opposite La Notre Dame Cathedral. The stranger of professional taste approaches "l'Hotel Dieu" with a feeling of reverence, inspired by the recollection of the great surgeons, physicians and lecturers who have achieved renown within its sacred walls. Contributing to impressions of this kind are the splendid portraits exhibited in the hall of entrance, of such men as Bichat, Dupuytren, and other luminaries of French medical and surgical literature. Dr. Ball, an English surgeon, was in charge on the occasion of our visit. This gentleman, who spoke French fluently, is a most accomplished lecturer.

The class, which was a large one, consisted of many nationalities, among whom was an African. The method of conducting the clinic was peculiar. While Dr. Ball commented on the history, symptoms and treatment of each case, at the same time he challenged his pupils and others to an expression of opinion. The discussion between master and pupil often became animated, and important facts were in this way elicited.

The antiquity of Hotel Dieu would not appear to render it in any respect inferior to hospitals of more modern origin. In Catholic countries one will not fail to remark that special care is devoted to establish such institutions, for the relief of the sick and destitute. The separate departments of Hotel Dieu present every convenience, and are well ventilated. The beds are provided with muslin curtains, which insure privacy and comfort to the patient. The diet list is most carefully recorded on the tablet on which the prescription is written. Cases of rheumatism, though it was midsummer, were very numerous. In the lying-in ward, cribs for the accommodation of the infants were placed by the side of each bed. The practice of confining the babe in tight bandages, common also in Germany, did not appear to contribute to its comfort or growth. The ubiquitous "vin ordinaire and baker's bread," which constitute the diet of the middle classes of France, were seen on a table near each bed. The room in which the examination of syphilitic patients was made had in it a table constructed with reference to position and convenient manipulation. Females of every age and condition, affected with gonorrhœa and syphilis, were examined with the aid of the speculum, in the presence of the nurse and the students. The os and cervix uteri were exhibited in every grade of inflammation, ulceration and syphilitic derangement. The cautery was freely used for the relief of such cases. The student could not have a better opportunity to acquire a practical knowledge of surgery and medicine, aided by the instruction of skillful and talented professors, than at this hospital.

We next visited La Salpêtrière, another very old Parisian Hospital, passing on the way by the Cemetery of "Père la Chaise," and the "Jardin des Plantes," and crossing the Seine over the "Pont d'Austerlitz," into the district known as "Old Paris," and in a quarter where once resided the most

eminent medical men of the city. Though unprovided with a letter of introduction, the medical official in charge at Salpêtrière allowed us access to the entire building. Neatness, order, and strict attention to hygienic rules, were visible throughout the numerous wards of this famous hospital. The patients appeared admirably cared for. All were encouraged, of the convalescent class, to be employed. French gaiety, even under the clouds of mental and physical infirmity, was expressed in various ways. Grotesque and humorous pictures, of which the French people are so fond, were suspended on the walls. The amount of reading was small in comparison with English and American institutions of the kind. The newspapers and books were of the most inferior description. I saw a single exception at Vichy, where the Government has liberally provided for hundreds of invalids from all parts of the Republic, including orphan children, and have school rooms attached to every ward appropriated to this class, and furnished with every modern appliance suitable to acquire useful knowledge, together with a handsome chapel for religious purposes. In the female wards of Salpêtrière, the cuisine, and even pharmacy, were presided over by a corps of Sisters of Charity appointed by the Lady Superior of Paris.

HOSPITAL REPORTS.

UNIVERSITY OF PENNSYLVANIA.

Service of Prof. D. HAYES AGNEW, M. D.

REPORTED BY DE FOREST WILLARD, M. D.

Amputation of Fingers.

GENTLEMEN—The man before you, 26 years of age, received four days since a severe injury to the second and third phalanges of the middle and index fingers of his right hand, from revolving machinery. The laceration was so extensive that death of the parts followed as a necessary consequence of the cutting off of the circulation. The other fingers were injured but to a slight degree, and are even now healing.

The two first mentioned members, however, will now require removal, and this we shall proceed to do. The most important point in such an operation is to determine how much of the injured members shall be taken away. It is a question which is of considerable importance, and you will find that each surgeon has his own individual views, but from my experience, I feel confident in saying, that when removal of either middle or third fingers is required above the articulation of the first with the second phalanx, you will find it advantageous to

amputate at the metacarpo-phalangeal junction. I say this, because I have found that any short portion of a finger frequently proves exceedingly annoying to the patient, on account of its want of correspondence in movement to the motions of the other digits, due to severing of the flexor and extensor tendons. In the case of the little finger, however, a small portion of this proximal phalanx, although of no practical value, yet might add somewhat to the symmetry of the hand. With the index finger, as with the thumb, there is but one rule, and that is to save all the tissue possible, in order to have good points of apposition.

When the ungual phalanges alone are injured, it frequently happens that the slough heals, rendering retrenchment of the bone unnecessary. Even when the metacarpal bone of the thumb is lost, the mass of muscles constituting its "ball" are of great service in holding and lifting weights in connection with the fingers.

In regard to the disposition of the head of the metacarpal bone when an entire finger has been removed, there has been much discussion, due, I think, to the fact that the advocates of the various plans have overlooked the fact that the advisability or non-advisability of such removal would depend upon the subsequent uses to which the mutilated member was to be put. In the case of a lady, less deformity would result in the event of its removal, the fingers gradually approaching until scarcely any trace of the missing portion is noticeable; but in a laboring man such impairment of the strength and width of the palm, by injury of the transverse ligament, would be most inconvenient.

The man being now etherized, I proceed to remove the middle finger by commencing my incision upon the back of the knuckle, over the condyle of the metacarpal bone; then carrying it well forward to a point half an inch in front of the most prominent portion of the bone, I carry the knife around to the palmar aspect of the finger joint in front of the commissure or web, and there connect it with the main incision, passing from the starting point around the other side of the member. I am thus explicit in regard to these incisions, as I know that students and even practitioners frequently make the sad mistake of cutting a flap so short that the bone is insufficiently covered, a mistake which occurs from a neglect to flex the finger before commencing the operation, as by this simple procedure the extreme end of the bone is made prominent.

The articulation being exposed, the lateral ligaments are nicked with the point of the knife and the bones soon separated. This articulation being a shallow ball and socket joint, there is no difficulty in carrying the knife between the opposing surfaces, but in the phalangeal joints great annoyance and delay is frequently occasioned by the mistaken haste of the operator, in attempting to pass his knife directly through, in defiance of the anatomical conformation of the extremities.

of the bones. Sawing the knife, or hard pressure will only drive the edge deeper into the ends of the bone. Let him, however, delicately nick the lateral ligaments with the point of his knife, cutting from without inwards, and all the difficulty disappears; the joint will open by the slightest flexion of the finger, when the anterior ligament is easily divided and the operation completed.

The removal of a finger is seldom followed by serious hemorrhage, unless the parts are densely indurated by inflammatory deposit, in which case retraction of the artery becomes impossible, and the open and enlarged orifice permits a flow sufficiently copious to necessitate the application of a ligature to each of the digital arteries.

The index finger, as I told you, is so important a member that I shall save all that I possibly can, and will therefore remove it a little beyond the middle of the first phalanx. I will make lateral flaps, since the condition of the soft parts would require a higher amputation, if I should cut dorsal and palmar ones.

The further dressing of the wound will consist in approximating the parts by suture and adhesive strips, and then applying laudanum and water dressings, to control the resulting inflammation.

With the exceptions which I have already given, the rule in regard to amputation of any portion of the hand, is to save all tissue which is sound and healthy. One or more carpal or metacarpal bones may be taken away, or even portions of them excised, with a conservatism which will frequently succeed in saving large portions of the hand apparently doomed to destruction. Even the thumb without any of the fingers is of great service, in fact the carpus alone may be put to use, as seen in the interesting case which I now show you, in which there is a congenital deficiency of both metacarpus and phalanges. This man engages in the laborious occupation of shoveling, and is able to fix the handle of the spade so firmly as to be able to perform a full day's work. The flexors and extensors are well developed.

After amputation of the fingers it is well to slit up the sheaths of the tendons, since they are liable to form canals for the transit and burrowing of pus. This burrowing may also be prevented by the firm application of dressings to the stumps, and to the palm of the hand. An attempt should always be made to save fingers, even when they have been almost entirely severed, since delay usually does no harm.

Palmar Abscess.

The next cases which I shall show you are also instances of surgery of the hand, a department which is so common and yet so difficult that I feel you can never see too many cases. Look at the anatomy of the hand and then at its uses, and you will see how necessary that you should be so conversant with its surgical treatment that the best

possible results may follow your curative efforts in its behalf. It is a region peculiarly liable to accidents and diseases, and is truly such a complicated piece of mechanism that it is wonderful that it is not more frequently out of repair.

The man before you is a mechanic, and his case illustrates a very common class of diseases. He remembers no special blow or injury, but his work is such as to occasion frequent concussion and bruising of the palm. As often happens under such circumstances, an inflammation is finally induced, which goes on to suppuration and all its consequent troubles.

If you look at this member you will find it misshapen, swollen and discolored, and upon palpation the dorsal aspect is markedly oedematous.

In the palm the swelling is not diffused, but is accurately defined and limited to the central portion of the hand, a diagnostic sign which at once shows that the collection of pus is beneath the deep fascia. There is no actual fluctuation, yet this tense condition of the fascia is sufficient to show that there is an accumulation of inflammatory products beneath.

If you will recall the anatomy of the part you will remember that the central portion of the palmar fascia is triangular in shape, is exceedingly dense and strong, and separates, by its vertical prolongations to the interosseous aponeuroses, the central from the lateral regions, *i. e.* the muscles of the ball of the thumb and little finger. It is partially, as you know, an expansion of the tendon of the palmaris longus, but its apex really commences at the annular ligament, while its base is split up into four processes, which pass down upon the fingers, and are again each subdivided into two slips, which inclose the tendons of the flexor muscles, allowing these tendons to play beneath the arch thus formed. These slips commence opposite the heads of the metacarpal bones, and in the intermediate spaces pass the digital vessels, nerves, and the interosseous muscles, the fascial division being firmly bound together by numerous dense transverse fibres.

Thus you see what a strong, unyielding membrane we have to limit and define this region, and so strong is it that a long time is required for pus to perforate it, preferring rather to seek an exit upon the back of the hand, by passing through the interosseous spaces. Before such an occurrence takes place, however, spontaneously, the disorganization of the structures beneath this fascia becomes so extensive that great subsequent complications are the results. Inflammatory adhesions of the tendons to their sheaths or the surrounding tissues takes place, and the hand remains crippled for life from the loss of motion in one or more of the fingers.

Such a result is an exceedingly unhappy one, and should be prevented by the action of the surgeon in giving vent to the pus before such necrosis of tissues takes place.

The diagnosis of an accumulation of pus beneath this fascia is not an easy one, yet

the oedema of the surrounding parts, with great inflammatory stuffing of the tissues, will indicate its presence in the deep structures, and especially if there is a particular point at which there is a tendency to pointing. Even without any other positive symptoms of the presence of pus than that of oedema and swelling, yet if the inflammation has been long continued and the pain severe, it may be almost certainly diagnosed, even although no fluctuation be discernible.

Occasionally the pus travels anteriorly, making its way forward through the bifurcations of the phalangeal portions of the fascia, and makes its appearance upon the sides of a finger, in which case the palm may be drained without opening the deep fascia, by simply carrying the knife into it from the side of the finger at which the pointing is threatened. In such manipulation care must be taken that the bifurcation of the digital arteries be not injured, but that the incision be carried just in front of it.

When it becomes necessary to open an abscess directly in the palm, as is usually the case, the following anatomical points must be remembered. The digital arteries lie in the interosseous spaces; the tendons lie directly over the bones; therefore the incision must be made just a little to one side of the metacarpal bone, in order to slip past the tendon if possible, and yet the point of the knife must be directed toward the bone, in order that the artery may escape injury.

In opening an abscess the incision should be sufficiently large to admit of free drainage, since any burrowing of pus is exceedingly disastrous. The incision may be made without fear of injury to the palmar arches at any point in front of a line drawn across the palm perpendicular to the web which joins the thumb to the hand, since the arches lie directly over the heads of the metacarpal bones. Posteriorly to this any incision becomes dangerous, and should be made with great care; in fact, a knife should never be plunged in, but any accumulation of pus which may here exist should be reached by a slow and careful dissection, raising the layers of fascia upon a grooved director, and slitting them up with the bistoury.

In the case before us, as the most prominent point of the abscess is directly over the metacarpal bone of the middle finger, I carry my knife directly down to the bone, slipping past the tendon as I have told you. The pus flows freely, and we can assure this man that he will be almost immediately freed from the excruciating pain which he has been suffering for the past week. A flaxseed poultice will be applied and continued until the discharge ceases; after which, repeated manipulations of the fingers must not be omitted, lest adhesions and contractions supervene and injure the member.

Aneurism of the Palmar Arch.

The next patient is a boy, 13 years of age, who received a punctured wound of the hand some three months since. The wound

healed kindly, but in a few weeks after, while playing ball, he suddenly felt a twinge of pain in the hand, and in a few days noticed a slight feeling of discomfort. In a short time a small tumor was discovered, which has slowly but steadily increased in size to the present time, when it has attained the bulk of an English walnut. The tumor pulsated strongly, but this action ceased almost entirely when the ulnar artery was compressed, and was arrested by pressure on both radial and ulnar.

Under the hope that coagulation might occur, the latter artery was tied and the radial compressed, but as such result did not follow, I propose this morning to dissect down upon the tumor, tie both its sources of supply, and allow it to ulcerate and slough away. I therefore make an incision directly over its long diameter, lay off the flaps, and then raising successive layers of deep fascia and expansion of the palmaris longus tendon, pass slowly down until I reach the sac. Several small branches bleed freely, but they are easily tied; and now, as I clear all the structures from around the tumor with my grooved director, you can see the pulsations at each contraction of the heart. The aneurism is evidently upon the superficial arch, and I now pass eyed probes beneath both its ulnar and radial sources of supply, and then drawing through strong ligatures, tie them tightly and firmly. All pulsation ceases at once, and we have only to put on a light water dressing, combat the inflammatory symptoms and wait until it sloughs away.

(The boy made an excellent recovery and has now perfect use of his hand. DE F.W.)

The primary wound of the arch was evidently simply through the external or fibrous coat of the artery, but this so weakened its walls that subsequent exertions were easily sufficient to cause saccular dilatation.

In regard to recent incised or punctured wounds of these palmar arches causing serious hemorrhages, I am in favor of cutting directly down and tying both ends of the bleeding vessel. The search may be tedious but the hemorrhage can be controlled by pressure upon the brachial, and when once secured, the subsequent dangers are less than if the brachial or radial and ulnar are tied. When the artery cannot be reached, it is advisable to attempt to control hemorrhage by the application of a graduated compress to the wound, the hand being bound firmly upon a splint.

This fall, the two main arteries of the forearm may be ligated, but the anastomosis with the interosseous is so free, that bleeding may still occur, and it is therefore ordinarily recommended to go higher up and tie the main trunk in the arm. In the majority of cases, however, I believe this to be too serious an operation to be performed when an exercise of patience would be rewarded by the finding of the bleeding vessel itself, and as there is already a wound in the palm, but little additional injury is done.

MEDICAL SOCIETIES.

REPORT OF NORTHAMPTON CO., PA.,
MEDICAL SOCIETY.

October 19th, 1873.

The quarterly meeting of the Society was convened at 2 P. M.

Drs. Breinig and Samuel Sandt reported cases of married women who had never menstruated, although healthy. Dr. Seip reported a case of a married female who never menstruated except during her eight pregnancies. Dr. Ott reported a case occurring in the practice of Dr. A. Reeves Jackson, where menstruation took place although double ovariectomy had been performed. H. Beigel, in a recent paper,* advocates the theory that ovulation and menstruation are independent functions.

Dr. Green stated that there were no epidemics and a small amount of disease throughout the county during the summer.

Dr. Breinig reported a case of neuro-retinitis with flakes on the vitreous, which was recovering under pot. iodid. and hyd. bichlorid.

Dr. John Sandt reported a case of spinal meningitis in a boy about 16. For two weeks he could not bear the light of the sun when working, as it caused considerable weakness. Dr. S. saw him on July 19th, and found him able to walk in a dragging manner, with great distress in breathing, a constriction about the chest, state of pupil not noted, general hyperæsthesia of the body, fever, headache, tenderness along the spine, aggravated by motion, and no vomiting. In a few days the paralysis of the lower extremities and left fore-arm was more complete, continuance of the fever, although no headache, spasms, or loss of power over the sphincter present. The fever subsided about the fourth day. The treatment at first was verat. virid. with calomel and counter-irritants, then pot. iodid. with strychnia and faradism of affected muscles. At present, three months after the commencement of the attack, there is considerable emaciation; hyperæsthesia is not present except at exit of sciatic nerves; electro-muscular contractility of lower extremities is lowered, although better in the left leg. Sensibility is greater in the right leg. Electro-muscular contractility is better in right arm than in the left. During the past three months slow and gradual improvement has taken place. In the discussion as regards treatment the following was thought best: fld. ext. ergot in large doses, with pot. iod., pot. bromid, faradaic currents to affected muscles, and counter-irritation along the spine.

Dr. Ott alluded to a short experience with a Leclanché manganese cell, stating that M. Rosenthal, of Vienna, and Sincohn, in our own country, recommended it highly in electro-therapy. The late experience of

Schwanda and Priwoznik* is that good results were obtained from it when daily used for thirteen months without renewal of fluids. This fact removes the doubt of Riemseris that this battery, when diligently used, would lose rapidly its electromotor strength. The physiological strength of the cell remained nearly the same after a year. Its recommendations are its cheapness, power of affording electricity for a long time without renewal of supplies, and absence of acid. The cell consists of a porous jar, containing a carbon plate and oxide of manganese. This is sealed at the top and placed in a glass jar containing solution of muriate of ammonia, and a rod of zinc.

On motion Society adjourned.

CHENANGO COUNTY, N. Y., MEDICAL
SOCIETY.

The Tri-annual meeting of the Chenango County Medical Society was held in Norwich, Oct. 14th, 1873.

The Society was called to order by the President, Dr. H. Halbert, and the minutes of the preceding meeting were read for information.

Notice of the death of Dr. Blin S. Sill, of Bainbridge, was given by Dr. G. W. Avery.

Dr. H. S. Gardner reported a case of abscess of the gall-bladder, that previous to an autopsy had been diagnosed as abscess of the liver. In the space of about nine months this abscess discharged through an external opening thirty-four gall stones. The patient, a male, died ultimately of bilious diarrhœa. The gall and bladder had been completely obliterated, leaving in its place only a sack of gall stones, thirty-one in number. A peculiar feature of this case was, that notwithstanding the destruction of the gall-bladder the abdomen was abundantly covered with successive layers of adipose tissue, thus refuting some of the theories in regard to its supposed functions.

A case of diseased prostate was reported by Dr. H. C. Lyman. The gland at death was found to measure five inches in length, two in width and three-quarters of an inch in thickness.

Dr. S. F. McFarland, as committee on Surgery, gave a practical illustration of the workings of the laryngoscope and of Dieulafoy's Aspirator as modified by Tieman of New York. Referring to many of the improvements in Surgery and Surgical appliances, he exhibited a specimen of paper dressing for fracture. This he reported was first used in this county by Dr. Geo. Douglas, and had been subsequently introduced into his own practice. This is made by cutting manilla paper into suitable strips and stiffening the same by the application of common starch.

On motion, the Society adjourned to meet at the Eagle Hotel, Norwich, on the second Tuesday in January, 1874.

D. M. LEE, Secretary.

* Rosenthal's Centralblatt, No. xlv, 1873.

* Rosenthal's Centralblatt, No. xli, 1873.

EDITORIAL DEPARTMENT.

PERISCOPE.

Treatment of Syphilitic Cachexia.

Mr. S. A. Lane, in a clinical lecture reported in the *British Medical Journal*, has the following remarks on this subject:—

The efficacy of the iodide of potassium is admitted by all surgeons, but many think lightly of the powers of sarsaparilla in this disease. I am not sorry of the opportunity of expressing my decided opinion of its value in all the symptoms of syphilitic cachexia. I am old enough to remember the time, before the introduction of the salts of iodine, when sarsaparilla was almost the sole remedy depended upon in the treatment of tertiary syphilis. During this period, I tested fully the powers of sarsaparilla, as compared with those of steel, bark, and other tonics, by treating cases in the Lock Hospital, under the same hygienic conditions, alternately by the latter remedies and by sarsaparilla, with the result of convincing myself that they possessed little or no efficacy, and that sarsaparilla was the most powerful remedy then known in tertiary syphilis. Indeed, most of the cases treated by bark or steel, or by both these medicines, remained nearly stationary until sarsaparilla was taken, when a rapid improvement set in. Pains in the bones disappeared in a week, and the other symptoms in succession; and in the majority of the cases the patients were apparently well after a six weeks' or two months' course of the medicine. In fact, the patients recovered as certainly and almost as quickly as they do now under the iodide of potassium. They were, of course, as liable to relapses, but not more so than now under the latter remedy. Yet I am frequently told by surgeons that they never give sarsaparilla, as they think it is a useless remedy. The only fault I find with it is that it is expensive, and not always well prepared.

After these general observations, and having laid down the principles upon which the treatment should be conducted, a few words will suffice to explain the details of the plan which I find of most advantage in syphilitic cachexia, whatever may be the existing symptoms of the complaint. It consists in the administration of iodide of potassium in from three to ten grain doses, taken in a third of a pint of the simple or compound decoction of sarsaparilla as a vehicle, alternating with a pill of two grains of quinine and three grains of confection of opium, also taken thrice daily. Exceptional cases may require the iodide to be increased to fifteen or twenty grains, and an additional dose of opium at night will often be found necessary. I have been disappointed,

as I have before mentioned, with the preparations of steel or other tonics in these affections. Opium has appeared to me beneficial in two ways, firstly, by soothing pain and allaying irritability; and secondly, by moderating the amount of the several secretions, and thus preventing all unnecessary waste. I may mention here that these patients are very liable to occasional attacks of diarrhoea, by which their symptoms are invariably aggravated. Under these circumstances, larger doses of opium, and the ordinary astringent remedies depended upon for checking diarrhoea, may be required; and, in fact, any concurrent disturbance of the general health must be met by its appropriate treatment.

I need not here repeat what I have just stated as regards regimen, generous diet, abstaining from over-exertion, and proper hygienic regulations, which must be carefully attended to throughout the treatment, and even after the patient is apparently well; otherwise relapses are almost certain to occur. Indeed, under the most careful management they will occur; and it requires great confidence in the principles of treatment to refrain from altering the plan. Many surgeons are disposed to leave off the iodine, and to give mercury; and I have frequently had great difficulty in persuading both patients and surgeon that the accession of fresh symptoms constituted a reason the more for persevering with the iodine and increasing its dose.

The local treatment is of secondary importance, and I do not feel warranted in occupying your time with it; suffice it to say that the general principles of surgery will sufficiently direct you.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—Mr. J. B. SHANNON, of Chicago, has sent us his pamphlet circular on "Displacements of the Uterus, and an account of a new Principle of Treatment." The new principle is simply a new form of a pessary, "self-adjusting," as it is styled by the inventor. The theory of its action seems plausible, but there are several expressions in the circular which ought to be modified or omitted, as they convey erroneous impressions.

—One of the most impudent institutions in the world is the Bennett Eclectic Medical

College of Chicago. It sails under the name and colors of Prof. J. Hughes Bennett, of Edinboro', whom it claims as the prince of Eclectics. Its Sixth Annual Commencement, before us, for sublime mendacity, distances even the renowned "American University of (Camden near) Philadelphia."

—Among the more interesting foreign medical works announced we mention the following:—

Arnold. Anatomische Beiträge zu der Lehre von den Schusswunden, gesammelt während der Kriegsjahre 1870 und 1871 in den Reservelazarethen zu Heidelberg. Mit 13 Tafeln. Heidelberg, 1873. 4to, 216 pp.

Gutzeit L. H. Dreissig Jahre Praxis. Erfahrungen am Krankenbett und im ärztlichen Kabinet. (In 2 Thln.) 1. Thl. Wien, 1873. 692 pp.

Huffell, W. Anatomie und operative Behandlung der Gebärmutter- und Scheidenvorfälle. Mit 26 lith. Abbildungen. Freiburg i. Br., 1873.

—The Philadelphia Guide. Porter and Coates, 1873.

BOOK NOTICES.

A Practical Treatise on the Diseases of the Ear, including the Anatomy of the Organ.

By D. B. ST. JOHN ROOSA, A. M. M. D.
110 Illustrations. 8vo, 500 pp. W. Wood & Co., New York. Price \$5.00.

At no period of medical history has the anatomy and pathology of the ear been so minutely cultivated as at present, and the number of those devoting themselves to Otology is constantly increasing. It is also gratifying to know that most of our recent graduates have been taught the general anatomy of the ear, and can doubtless make an examination so as to determine the condition of the organ, excepting in rare forms of disease. Of the works devoted to its anatomy we may here mention those of Drs. Rüdinger, Politzer, Kessel and Waldeyer, the latter having given his exclusive attention to the auditory nerve and cochlea. The monographs upon this one interesting subject number 69, among which we notice the well known names of "Gottstein," "Bottcher," "Breschet," "Claudius," "Corte," "Kölliker," and others. Our knowledge of the medicine and surgery of the ear has also advanced, as seen by the nu-

merous papers, to say nothing of translations, published in every medical journal, and the general works in this department have kept medical men well informed in all the practical details. First in importance is the work of Professor Gruber, of Vienna, then come Rossl, of Italy, and Dr. L. Turnbull, of the United States, still more recently, Drs. Dalby and Pennefather, of England, and Dr. Roosa, of this country. It is our intention to notice this latter work, which, produced at this time, with all these advantages, ought to show some internal evidences of a knowledge of the subject in advance of what we find in existing standard works, and free from the defects of those works published. A recent boasting critic in a New York journal states "Most of the general practitioners are lamentably ignorant of the subject of diseases of the ear, and if they do not confess their ignorance, do what is worse by concealing it, and do their patients a great deal of harm." Now we have not found this to be the case, and we doubt if it is so in New York, and it should have been Dr. Roosa's agreeable duty to refute this statement, instead of saying "probably to-day there are more practitioners of medicine who view aural medicine and surgery from the stand-point of the errorists of the dark ages than there are in any other field. It is to be feared that even now many wise and skillful men do not know that to drop stimulating or even anodyne applications upon a membrane which they have never examined, to probe an ear for wax they cannot see, etc.," pp. 17, 18.

Chapter 1. We propose, therefore, to analyze the treatise, carefully searching for the new ideas it may contain, as the second work on diseases of the ear emanating from an American source and intended as a guide. The first chapter, of 49 pages, has no value except as a historical sketch, the greater portion of it being a free translation from the work of Carl Gustav Lincke, an almost obsolete work, published in Leipzig in 1837, consisting of two volumes, the first of which contained the Historical Progress of Otology, with the Anatomy, Physiology and Pathology of the organs of Hearing. It was very prolix in its literal analyses, and was never considered worthy of a translation. In this sketch of the progress of Otology, from 1843 to 1860, Dr. Roosa omits the work of "Rau," the distinguished professor of the university of Bern, published in Berlin

1856; his "Lehrbuch der Ohrenheilkunde für Ärzte und Studierende" is undoubtedly the most thorough scientific work on Diseases of the Ear published in German up to that date, and contains a full account of the use of air, steam and carbonic acid, with illustrations of his apparatus.

Chapter 2. Anatomy of the auricle and external auditory canal, containing thirteen pages, mostly occupied by wood cuts; is laboriously compiled from the works of Gray, Gruber, Henle, Hyrtl, Kessel and Von Trötsch.

See p. 72, value of the tuning fork: "As Dr. Prout intimated, the great desideratum is an instrument which will give the same number of vibrations of the same pitch and tone under the same conditions." Same number of vibrations must be the same pitch under all conditions. What is intended to be conveyed is that we need an instrument which will always yield the same *intensity of tone*, or, in plain English, be as loud when used at one time as another. Also, p. 75, "on striking, it (the tuning fork), we notice particularly two distinct tones, one the ground tone or dominant, the other the upper tone or musical fifth" (mistake).

Chapter 3. The examination of aural patients contains as complete an account of the method as is generally given, but on p. 82 is a representation of the most awkward manner of using the speculum that could be imagined, and on p. 84 the operator is represented breaking his back over an equally ingenious and equally awkward method. (The cut is a representative illustration, which looks as if it came from some illustrated modern novel.) By the first method, to be sure, the external canal may be straightened, but the speculum cannot be introduced by the second; the speculum may be screwed into the crooked canal, much to the discomfort of the patient and not much to the advantage of the operator. The author's frequent method of pulling the auricle aside and throwing in daylight, without the speculum, must be much more comfortable.

Our author states, in the same chapter, "I introduced the use of the aural mirror (or otoscope, as it should be called) into the practice of the New York Eye and Ear Infirmary, in 1863, where it soon superseded all other methods, and whence it has been very generally adopted in the United States." Is not this an assumption? As if the author's example introduced this mirror into general

use in the United States, as well as in the New York Eye and Ear Infirmary. It certainly was used by many physicians in the United States before 1863, who had read the work of Von Trötsch, published in 1862. The mirror was known before this, and was first proposed by Dr. Hoffman, of Westphalia, and was described by Dr. Trank, on p. 49 of his "Practische Anleitung zur Erkenntniss und Behandlung der Ohrenkrankheiten. Erlangen," 1845.

In the portion devoted to rhinoscopy much that is superfluous is minutely described, and the difficult problem of controlling the uvula is very graciously left to "the surgeon of ordinary tact." A slight acquaintance with laryngoscopy would have suggested that it is far better to have the patient to hold the tongue forward than for the operator to employ half his hands in crowding it back into the pharynx, and gagging the patient, (fig. 17); it is far from being an efficient instrument arrayed as in this illustration. Fig. 18 has neglected to give the explanatory matter called for by the letters in the cut. There is not a rhinoscopic view in the work.

In the author's description of the method of introducing the Eustachian catheter, the preliminary of drawing the lip down appears to take the place of the often necessary and always convenient lifting of the point of the nose upward; and he also allows the patient to interfere by means of the almost involuntary action of the faucial muscles, instead of having the mouth kept open, so that swallowing is made difficult and a matter of the will. Nor does it seem likely that the irregular action of the faucial muscles can as certainly direct the point of the catheter into the mouth of the tube as the hand of an ordinary surgeon into the parts quiescent. We would also suggest that during the injection of air it would not be a bad idea to guard against accident from the movements of the patient or his friends, by resting a finger or two upon the patient's cheek, whilst holding the catheter lightly between the thumb and fore-finger, instead of standing at arms length with the catheter grasped between the thumb and three fingers, with the hand in the clumsy position of supination, as depicted on p. 96. How much better would it be to sit in front of the patient and have perfect control of the catheter, by holding it as above indicated.

Again, one of the chief difficulties in the attempt to introduce the Eustachian catheter is entirely ignored, *i. e.* the displacement and distortion of the mouth of the tube, due to neighboring cicatrices. The objections on the last page of this chapter to Valsalvi's valuable method, hold equally good in regard to any other method of forcing air into the tympanum.

Chapter 4. Diseases of the auricle are classified as follows: 1. Malformations; 2. Tumors; 3. Malignant Diseases; 4. Injuries; 5. Eczema. This chapter is pleasantly written, but does not appear to mention congenital occlusion of the external meatus with normal auricle.

The author takes issue with Voltolini, who considers the auricle to be a reflector, condenser and conductor of sound. Dr. Roosa thinks if it were merely a reflector and condenser it would have done its work better if formed of bone. It is to be considered as an external membrana tympani. We would suggest that if man needed the large, smooth, sensitive and mobile ear, so useful to the horse and rabbit for instance, it would not, as at present, exist as the small crumpled appendix, which, while answering its purpose well enough, maintains man's analogy with his fellow creatures. This outer membrane is placed in different degrees of tension by reflex action, just as is the true membrana tympani by the tensor tympani. This he illustrates by observing the operation of syringing the ear; at the entrance of each stream of water the auricle moves, and at times this motion is sufficient to cause a backward current of the water from the ear. Again, many persons with impaired hearing can hear the watch if it but touch the outermost tip of the auricle, while it cannot be heard if held but a line removed from the part, p. 103. Neither of these phenomena has been witnessed by us, although we have syringed thousands of ears, and applied the watch to every part of the auricle; we have found but one spot that gave no response to the sound. Now this is certainly not the case with the membrana tympani. A recent writer* on the diseases and injuries of the ear, considers it open to question, whether the loss of one auricle in man, by accident, has afforded opportunities of comparing the two ears, or contributes in any

considerable degree towards collecting the waves of sound in their passage to the meatus. A still more recent communication to the Philadelphia *Medical Times*, by an original experimenter,* gives to it, we think, a true function as a resonator, and furnishes good grounds for this opinion. On pages 109 and 110 the author avails himself of the observations on Othematomata, by Dr. Hun, and adopts his cuts and pathological conclusions, which he states are confirmed by Dr. Brown-Sequard, "that disease of the base of the brain, which is, however, not always attended by insanity, is the cause of hæmatoma auris, p. 112." This cannot be confirmed in every instance of disease of the base of the brain that we have, and we consider the opinions of Drs. Kirkbride, Worthington and Laycock of more practical weight than even so distinguished a physiologist as Dr. Brown-Sequard.

In chronic eczema, Dr. Roosa considers arsenic the only specific for internal use, and further remarks, "I usually give Fowler's solution in connection with the local treatment, poulticing until all the crusts are removed, then anointing with an ointment of the sulphate of iron and simple cerate, in the proportion of from one to two grains of the former to a drachm of the latter." We have used Fowler's solution until our patient's eyelids and skin became cedematous, and yet have failed to cure our patients, and have given it up. We have found that after using the bichloride of mercury internally, every symptom of the disease has passed away, for we know that many of these cases are of syphilitic origin; therefore, mercurial treatment with the external use of nitrate of mercury ointment, (double the usual strength) or a sixty-grain solution of nitrate of silver judiciously applied to the external auditory canal, will cure a large class of cases which will not be influenced by arsenic. No mention is made of the importance of central galvanizations in treating eczema, when all other means have failed; it is stated by good authority† that the results recorded are more satisfactory than in almost any other form of cutaneous disorder.

Chapter 5. The External Auditory Canal. This contains a list of the affections of the canal, which are arranged as follows: 1.

* W. B. Dalby, Aural Surgeon, St. George's Hospital.

* Dr. Burnett.

† Drs. Beard and Rockwell, *Medical Record*, August 15, 1873.

Diffuse Inflammation; 2. Circumscribed; 3. Vegetable Fungous Growths; 4. Inspissated Cerumen; 5. Eczema; 6. Foreign Bodies, of Polypti; 7. Exostoses and Hyperostoses; 8. Syphilitic Condylomata and Ulcers.

In this chapter there seems to be considerable confusion, as parts of it really belong to, and have already been noticed in, preceding chapters, and the author says, "to avoid any misconception, I would remark that while bony growths (exostoses and hyperostoses) are classed under the affections of the external auditory canal, they are actually consequences of inflammations of the middle ear;" p. 119. Now this is not always true, for in three cases reported by Drs. Allen, Thomson, Jaeger, and the late Joseph Toynbee, F.R.S., in two cases they had the labyrinth quite naturally formed, the bony Eustachian tube and cavity of the tympanum also existing, with a certain amount of hearing, showing the disease did not originate in the middle ear, but in the external auditory meatus. On page 120, Troeltsch is made to repeat his old assertion that there can be no catarrh of the external auditory passage because there is no mucous membrane. Voltolini has considered this question in *Monatsschrift für Ohrenheilkunde*, January, 1871, No. 1, and gives good reasons for his term "catarrh of the external auditory canal." On page 127 the author recommends Davidson's syringe, which we would strongly condemn on account of the stream being intermittent and spasmodic, while the small syringe is but little better, as it requires filling every few seconds. A hard rubber syringe, of eight ounces capacity, with a well oiled piston, will be much more comfortable to the patient and satisfactory to the operator, in children at least, which form the great majority of the cases requiring the syringe, providing it is not held in the dangerous position indicated on page 128; he does not steady the syringe with two fingers of the same hand with which he holds the auricle back; the danger is of wounding the canal, perhaps membrane, or deluging the patient with every irregular motion; either may happen, and the idea of using no towels or gum cloth about the patient's neck is simply untidy.

Chapter 6. "Parasitic Inflammation of the External Auditory Canal, Syphilitic Ulcers and Condylomata." Our author considers the parasite not a primary disease, but a

consequence of a diffuse otitis. Betzold gives the history of ten cases of the disease, and adds his contribution to the pathology of parasitic growths in the ear. In all of his cases the presence of the vegetable parasite had been preceded by the instillation of oil into the external meatus, which, in his opinion, furnished a favorable soil for the development of the plant, but the presence of the growth he considers a specific parasitic, and not an accidental circumstance.

Chapter 7. Is devoted to inspissated cerumen, in which there are five cases given as ordinary, remarkable, and inflammatory trouble; cases which are met with in everyday practice, even the composition and functions of cerumen, with quotations from W. Thomas Buchanan, of Hull, published in London, 1823, the subject of which is more curious than instructive.

p. 152. *Learned to treat ears* as if they were soap-bubbles; not very complimentary in connection with the name of Gross. Dr. Isaac Hay, of Philadelphia, does he mean Isaac Hays?

Chapter 8. Foreign bodies in the Ear, with their Removal. The author having no statistics of his own furnishes those of Dr. Mayer, of Munich, and a case from Mr. Geo. Pilcher.

[To be Continued.]

Transactions of the Mississippi State Medical Association, 1873. Vol. VI. pp. 150.

Among the articles contained in this volume we mention one on Malarial Hematuria, by Dr. J. P. MOORE; on Sequelæ of Malarial Diseases, by Dr. J. W. M. SHATTUCK; on Scarlatina, by Dr. J. R. BARNETT; on Conservative Surgery, by Dr. A. A. LYON; on Dysmenorrhœa, by Dr. J. D. McCONNELL; on Epidemic Fever, by Drs. WHITEHEAD and CRAFT; and on Meningitis, by Dr. S. V. D. HILL. Cases are reported by Drs. HUNT, WHITEHEAD, LYON, HICKS, BOOTH, TAYLOR, and others. The Annual Oration was by Dr. A. A. LYON, of Columbus, on the Dignity of the Medical Profession, and is a well-written address. The Address of the President, Dr. C. B. GALLOWAY, is also an able composition. A brief but judicious report on the progress of materia medica and therapeutics is contributed by Dr. D. W. Booth, of Vicksburg. The volume generally is one highly gratifying to the friends of the Society, and we hope it will issue many such.

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, NOV. 22, 1873.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

Medical Societies and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

To insure publication, articles must be *practical, brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

Subscribers are requested to forward to us copies of newspapers containing reports of Medical Society meetings, or other items of special medical interest.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

THE LAWS COMMON TO MIND AND MATTER.

In the last few numbers of this Journal we have explained the modern doctrines of Life, of Force, and of Soul. It remains, in order to complete the survey of this recon-dite province of physiological science which we have been exploring, to examine somewhat more attentively that community of laws which we found at the conclusion of our last article to constitute the real bond of unity between Thought and Matter, or, to phrase it differently, between Mind and Body.

Two eminent English authors, Professor BAIN and Dr. MAUDSLEY, have each written, the last year, a work on this very topic, and each has advocated closely similar views. These, in the case of the former, defend, to use his own words, "a guarded Materialism," and in the case of the latter a Materialism that can hardly be called guarded. In spite of the high reputation of these teachers, and the solid worth of much of their writings, few who are versed in the literature of psychology will accept their theories as adequate. It is not our purpose to point out their shortcomings, but merely

to warn our readers that while they are good authorities so far as they go, they fail to grasp, or perhaps they avoid the subtlest points of the inquiry.

Taking their works as fair expositions of the ascertained and the suspected physiological bases of Life and Thought, we shall briefly adduce some of the laws common to thought and extended substance, in order to indicate the path of investigation in this direction.

First, what is the true mental correlate of the physical fact of *Life*? This is the first and broadest question. We have defined *life* to be a certain condition of material Being. What immaterial, unextended, mental fact is its universal associate, its inseparable correlate?

No one can hesitate a moment to acknowledge that this correlate is *Feeling*, the sentient faculty. This is exclusively confined to living beings, and is co-extensive with them, in the vegetable as well as in the animal world. But can we not define still more closely this correlate? There can be no reasonable doubt but that we can and must. Not *Feeling* alone, but *pleasurable feeling*, as opposed to *painful feeling*, is the true mental correlate of *Life*.

This is a most momentous and far-reaching conclusion. It is formulated by Prof. Bain as the "Law of Self-Conservation," in the following words, which, however, might be more pointedly arranged:—

"States of Pleasure are connected with an increase, states of Pain with an abatement, of vital functions." (*The Theories of the Relation of Mind and Body*. p. 59).

The condition of increasing vitality is therefore increasing pleasure, and *vice versa*; and that this is true mentally and morally, as well as physically, is the assumed foundation of what is known as the Utilitarian theories of Ethics and Political Economy. The objections to these theories are in constant process of reduction, and doubtless will, ere many years, be wholly

overcome; but of course we cannot stop even to glance at this immense discussion. Suffice it to say that modern physical science here reaches exactly the same point which psychical analysis, in the masterly hands of SPINOZA, attained two hundred years ago, as any one can see by comparing the third part of his *Ethics* with this last book of Prof. BAIN.

The second fundamental law common to Thought and Material, is akin to this first law of Self-Conservation. It is the law of Unity or Identity. Whatever is, exists as itself, and not as something else. In other words, it preserves its own identity. Plants and animals, whose constituent parts are undergoing ceaseless change, preserve the identity of Form, and what is even more inexplicable, transmit this Form, so that each species "brings forth after its kind." So in Thought, one must think of anything as one thing, and not another. The nervous impression given by the color blue, must always be recognized as the color blue, or all correct thought about it becomes impossible.

The third great law is the law of Duality, otherwise called Relativity or Contrast. One thing can only exist as one by being different from some other thing. So it can only be a subject of thought when contrasted with some allied subject of thought. We recognize the blue because it differs from the red, etc.

But we will not pursue the subject further, though it is far from exhausted. We merely want to show by a few examples that there are a series of laws, which are equally valid in the realm of mind and the realm of matter; that in the concrete expression of the law only, does the antithesis of the mental and material appear; and that the supposed antagonism of the two is a reality, only as the rising of the sun over the horizon is a reality, that is, a relative one merely. He who ponders sufficiently long on the meaning and character of these laws, will not be led astray by the narrower

doctrines of Materialism, "guarded," or otherwise, for he will perceive that the formal law holds by a higher title than its concrete expression, even if we may never know it apart from the latter.

NOTES AND COMMENTS.

Ethiops Mineral in Cholera.

Prof. SOCRATES CADET, of Rome, has sent us a circular letter detailing the experiences of the past summer with the Ethiops mineral in cholera. As a prophylactic he claims that no one who took it as prescribed contracted the disease; and as a remedy, that its success was flattering. The particulars of this treatment have already been given in the REPORTER.

CORRESPONDENCE.

Symptomatic Diplopia.

EDS. MED. AND SURG. REPORTER:—

A contributor to the REPORTER, Nov. 1st, 1873, details several cases of disturbed vision due to the action of cincho-quinine, and closes his remarks in the following language, viz:—

"Since cincho-quinine will undoubtedly produce these disturbances of vision, varying from slight blurring to complete diplopia, the inquiry naturally arises, whether this result is due to any change in the nervous or vascular condition of the retina; or due to a direct action on the origin of the optic nerve; or due to a general action on the cerebrum? If the diplopia is traced to either of the above sources, will the prolonged use of cincho-quinine in full doses, in any case of malarial fever, be likely to impair permanently the sight?"

It is a well established fact, known to all careful students of medicine, that quinine produces retinal hyperæmia, and if continued in full doses for any great length of time, produces amblyopia by obtunding the percipient power of the retina. The pathological features of amblyopia due to the action of quinine have not yet been determined. It is most likely that as the first effect is manifest in retinal hyperæmia, there is ultimately developed atrophy of some or all of the cones in the bacillar layer of the retina. Wells mentions that in cases of amaurosis from large doses of quinine, the trouble was probably caused by "great congestion of the cerebral circulation, as much benefit was derived from the artificial leech."^{*}

Whilst the ophthalmoscope discloses re-

^{*}Treatise on Diseases of the Eye, 3d Edition, p. 462.

tinal hyperæmia as an almost constant symptom of quininism, the amblyopia that follows never presents visible ophthalmoscopic phenomena.

The double vision resulting from "cinchoquinism" could not possibly be due to any disturbance of the "nervous or vascular condition of the retina," neither can it be produced by "direct action on the origin of the optic nerve;" nor by direct or indirect action on any part of the optic nerve.

To produce double vision there must be disturbance of the refracting media, or of the relations of the two eyes to each other. A want of harmonious action in the recti or oblique muscles, no matter upon what that want of harmony depends, will produce double vision in persons possessing binocular vision, and although the gentleman did not state, I warrant that no drug can produce diplopia in persons not possessed of binocular vision, and further, that had he or any of the other persons he mentions, closed one eye the double vision would have instantly disappeared.

Then it follows, necessarily, that muscular atony or palsy caused the diplopia, by disturbing the relations of the optic axes, interfering with the fixing of the two eyes upon a single object within eighteen or twenty feet of the subject.

Quinine produces unsteadiness in the internal recti muscles, as in other muscles of the body; unsteadiness in the action of the internal recti annuls the power to maintain that amount of convergence in the visual axes necessary in fixing the two eyes upon any near object, as in reading. The Doctor states that he and all the others could read for a moment or so before any disturbance became manifest. He states that "there was blurring between the apparent objects," and we assume that the images were separated laterally, that they were parallel, and that they were on the same horizontal plane.

This has, at least, been the character of all the cases known to the writer, and the gentleman does not state to the contrary. So, then, unsteadiness of the internal recti muscles must have given rise to all the visual disturbances complained of. The trouble is quite common after the use of large doses of quinine.

Professor L. P. Yandell, Jr., and Dr. C. H. Alexander, both of this city, reported* to the college of Physicians and Surgeons, of Louisville, a number of cases of diplopia occurring in persons who had taken the sulphate of cinchonina in five grain doses, to break the paroxysms of intermittent fever.

The statements of the gentleman are a little unfortunate, as those who read his report may possibly conclude that the visual disturbance is something to be feared from the use of the cincho-quinine, when, in fact, the ordinary sulphate of quinine, the sulphate of cinchonina, and all their preparations, are just as likely to produce diplopia.

* These cases numbered several hundred; the reports were made in 1871.

There is no danger in the use of cinchoquinine in anything like reasonable quantities.

The disturbance of vision is almost uniformly of very short duration, and possesses interest as a symptom of cincho-quininism merely; just as the swollen upper lip, coryza, etc., indicate iodism, and yet no one fears to use the iodide of potassium.

DUDLEY S. REYNOLDS, M. D.
Louisville, Ky., Nov. 5th, 1873.

NEWS AND MISCELLANY.

Medical Testimony in the Stokes-Fisk Case.

We take the following summary of the medical evidence in the above case from the *Scientific American*:—

The scene of the tragedy was at the Grand Central Hotel, on Broadway, in this city. Fisk had just entered the premises, and was in the act of ascending the stairway of the ladies' entrance, when he was shot by a man standing on the landing above. The ball entered his abdomen just above the navel and passed obliquely down through the intestines, lodging in the muscles of the thigh. Another ball made flesh wounds in the arm. The assassin was Edward S. Stokes, who was almost immediately arrested and lodged in jail, while the wounded man at once received medical attendance in the hotel, where, after lingering until the following day, he died.

From the evidence, it appears that Fisk was attended by seven doctors and surgeons, all prominent men in this community, namely, Drs. Carnochan, Tripler, Steele, White, Sayre, Fisher and Wood. In the multitude of counsel there is generally supposed to be wisdom; but it seems to have proved otherwise in this case. Dr. Tripler began operations by deeply probing the distressing wound, an injudicious proceeding, according to some of the medical experts. Subsequently Dr. Fisher, Dr. Wood and Dr. White each used the probe. Several glasses of brandy and water were administered, also chloroform and morphia. The latter was administered by the mouth, and by subcutaneous injection, six times within four hours.

Dr. Wood testified that he told Drs. Fisher and Tripler, who were the choice of Mr. Fisk as attendants, that they had two lives on their hands, Fisk's and Stokes', and must administer the opium with their fingers on the pulse and watch carefully the condition of Fisk's pupil and of his intelligence. He ascribed Fisk's death to shock, but admitted that the later symptoms, such as stertorous breathing, were symptoms of opium poisoning. He had heard of many cases of recovery from serious wounds in the intestines; he had seen, in cases of hernia, a portion of the intestines slough away and the patient recover; he did not, in the light of authenticated cases, consider Fisk's wound necessarily fatal.

Dr. J. surgeon or eight not this exhibit reacte half gra dermic using of the cau that it Fisk co will, if related tration fatal. O said tha him, in the wou did; th had so none of followi there v sufferin was a v sarily r him to Dr. C was al and th proper agreed Dr. A consid Dr. T explain enfeeb narcoth Probin shock resorte cated b shock death twenty at leng which death l sensibi Snorin Deep h covery sympto Fisk h the len of deat clusion morph Dr. on the the mo to thin drops, than v fifteen phia power. the de not di was no

Dr. John M. Carnochan, the distinguished surgeon, reached Fisk's bedside some seven or eight hours after the shooting. He did not think, when he saw Mr. Fisk, that he exhibited the symptoms of shock; he had reacted; he thought the giving of two and a half grains of morphia, thirty drops, hypodermically, was a most dangerous way of using opium; it was, he believed, at least the cause of his premature death, that is, that it hastened his death. He thought Fisk could not intelligently have made his will, if he was laboring under shock. He related cases, that he had known, of penetration of the bowels which had not proved fatal. On cross-examination, Dr. Carnochan said that he found Fisk, when he reached him, in an unnaturally somnolent condition; the wound did not kill him, the morphia did; there was a possibility that the wound had something to do with it, but he had none of the usual symptoms immediately following injury from a gunshot wound; there was nothing to indicate that he was suffering in any manner from the wound; it was a very dangerous wound, but not necessarily a fatal one. Q. You would expect him to get well? A. Of course I would.

Dr. Gordon Buck testified that the wound was alone sufficient to account for death, and that the use of opium he regarded as a proper treatment; but some of the symptoms agreed with those of opium poisoning.

Dr. A. B. Crosby testified that he would consider such a wound fatal.

Dr. Thompson, professor at the university, explained that death from shock arose from enfeeblement of the heart, while death from narcotism arose from coma, or from the head. Probing, in abdominal wounds, while the shock lasted, he thought should rarely be resorted to. Chloroform was contra-indicated by shock. It should not be used while shock lasted. He thought he had seen death result from the administering of twenty drops of chloroform. He described at length the symptoms of opium poisoning, which ends in coma, and declared that, in death by shock, though there might be insensibility, that was different from coma. Snoring was utterly inconsistent with shock. Deep breathing was the clear mark of recovery from shock. He declared that the symptoms described indicated that Mr. Fisk had recovered from shock. He thought the length of time excluded entirely the idea of death from peritonitis, and the only conclusion was that he died from an overdose of morphia.

Dr. Macready was examined as an expert on the effect of the wound, and the effect of the morphia administered. He was inclined to think, from their describing the doses by drops, that one-half more had been given than was supposed, as ten drops would be fifteen minims. The administering of morphia hypodermically nearly doubled its power. He was strongly of opinion, from the description of the case, that Fisk did not die from shock or peritonitis. There was not enough peritonitis to produce death,

and the development of the symptoms were not those of shock. The symptoms were those of inflammation of the brain or uræmic or narcotic poisoning. There being no disease of the brain or kidneys, he ascribed the death to an excess of narcotics.

Dr. Marsh, deputy coroner, testified that he made the *post mortem* examination. In his opinion the death of Fisk was due to shock and peritonitis. But the latter was not sufficient of itself to have caused death. As to narcotism, he did not make any examination. Subcutaneously administered, one twenty-third part of a grain of morphia had been fatal. Taken in the stomach, two grains had been fatal. As to wounds in the abdomen, in the Crimean war ten per cent. of those wounded had recovered; in the recent rebellion war, twenty-five per cent. had recovered.

Judge Davis, in submitting the case to the jury, made an elaborate and excellent charge. He solemnly warned them against allowing themselves to be influenced by any feelings of prejudice either for or against the prisoner. They must be wholly governed by the evidence before them. In reference to that branch of the defence here under consideration, the Judge was very clear and explicit. "If morphia improperly administered, either as to the manner or as to the quantity, caused the death of James Fisk, Jr., on the 7th of January, 1872, not as an accelerating cause, but an independent cause, being in itself the sole agent producing death at that time, then the prisoner is not chargeable with the death, because another and an independent agent produced that result, in which his act, the wound he caused, did not concur. * * I charge you, as the law on this subject, that if you come to the conclusion that the medicines administered were the sole cause of death, and at the same time that the prisoner intended to kill, that he fired the fatal shot with intent to kill, and inflicted a wound with that design, then it is your duty to convict him of an attempt to commit murder in the first degree." In view of this charge, and the medical evidence, it would seem as if the jury had reason for giving the verdict they did, independent of the other points of the defence, which were well sustained.

QUERIES AND REPLIES.

The Horse Chestnut.

"Will you or some of your readers inform me what are the medicinal properties of the Horse Chestnut, or Buckeye, as it is called in the West."

T. W. R.

Reply.—Its principal use has been as an antiperiodic, the inner bark being the part employed.

Eds.

Eye Cups.

Dr. E. H. H. of Ky.—We are of opinion that the eye cups advertised to restore the sight when it commences to fail from advancing years, are of doubtful efficacy.

Advertising.

Dr. W. G., of Tenn.—A very little reflection shows that were it allowable for physicians to advertise nostrums, the public would have no protection from most injurious preparations.

Dr. F. M. A., of Ind.—We can obtain and forward you the work referred to on its appearance.

Dr. D. N. McB., of Ohio—We recommend "Thompson on the Urinary Organs," and "Chambers on Indigestion."

"Christ's Eye."

A correspondent wishes to know the botanical designation of the plant called by this name in Culpepper's "Complete Herbal" and other old works.

OBITUARY.

SIR HENRY HOLLAND, BART., M. D., D. C. L., F. R. S.

The death of this distinguished man was announced in telegraphic dispatches from London, October 28th. He belonged to the generation that was in its prime when Scott, Byron, and Wordsworth still flourished, and was the physician or friend, and in some instances both, of Campbell, Moore, Joanna Baillie, Rogers, Lord Grey, Lord Lansdowne, Lord Brougham, Earl Russell, Macaulay, Sydney Smith, Hallam, and others, whose names will go down to posterity, and attended professionally at least three friends of Dr. Johnson, Mrs. Piozzi (Thrale), Sir W. Pepys, and Mme. D'Arblay. He was consulted about the last illness of Napoleon I, and prognosticated its fatal termination. He was the friend of Mme. De Staël and Talleyrand. He was with Mr. Canning, Prime Minister of England, during the last two days of his life. It was then that Canning said to him, "I have struggled against this long, but it has conquered me at last." At Holland House he met Sir Philip Francis, the reputed author of the "Letters of Junius." He repeatedly saw Lord Byron in London society, and says of him:—"His presence made the fortune of any dinner or drawing-room party for which it could be obtained, and was always known by a crowd gathered round him, the female portion of which generally predominated. I have seen many of these epidemic impulses in London society, but none more marked than this. There was a certain haughtiness in his manner of receiving the homage tendered him, which did not, however, prevent him from receiving it with drawal." The autobiographical sketch from which this quotation is taken was prepared for his children in 1868, and in it he alludes to this remarkable linking of the associations of several generations thus:—"A memento of this passage from one generation to another occurred to me but a few weeks ago, when Lord Stanley happened to be dining alone with me. It astonished him to learn, as in some sort it did myself to relate, that I had frequently attended his great-grandfather (the eleventh Earl of Derby) some forty-five years ago."

Sir Henry was the eldest son of Peter Holland, Esq., and was born at Knutsford, Cheshire, England, October 27, 1753, and had just entered on his eighty-sixth year when he died. He was educated at the University of Edinburgh, where he graduated M. D. in 1811, and soon afterwards he made a tour of Greece and the Ionian Islands, of which he published an account in 1815, under the title of *Travels in Albania and Thessaly*. On his return to England, he established himself in London, and soon attained a prominent position in the medical profession. He was appointed Physician in Ordinary to the Princess of Wales, afterward Queen Caroline, in 1814, to Prince Albert in 1840, and to Queen Victoria in 1853. He was made a Baronet in 1853. In 1834 he was married the second time, to Saba, daughter of Sydney Smith. He was successful from the very outset of his professional career, and it was his good fortune to find himself placed in the midst of the most agreeable society in London. He was one of the famous "set" which made Holland House illustrious. His observation

of the world was not gained alone by association with the eminent men of England. He made it a constant practice to spend two months every year in foreign travel, even in the period of his greatest professional activity, and there are few interesting countries, except in the far East, which he had not visited. He made eight or nine voyages to the United States, and on the last, in 1839, was accompanied by his son. In the sketch alluded to above he recalls memories of these journeys. "I have come back each year refreshed in health of body and mind, and ready for the ten months of busy practice which lay before me. On the day, or even the hour, of reaching home from long and distant journeys, I have generally resumed my wonted professional work. * * * I recollect to have found a patient waiting in my room when I came back from those mountain heights not more than 200 miles from the frontier of Persia, where the 10,000 Greeks uttered their joyous cry on the sudden sight of the Euxine. The same thing has happened to me in returning from Egypt and Syria; the communication in each case being made from points on my homeward journey. Returning from America I have more than once begun a round of visits from the Gaston Station." He speaks of one of his previous visits to the United States, in an allusion made to Sydney Smith, in the following language:—"One of his warmest admirers was the late President Abraham Lincoln, himself a man of much quaint humor, curiously expressed in tales of Kentucky and Illinois life, which he brought into connection with events seeming to require more serious illustrations. Of the six Presidents of the United States whom I have known, including Andrew Johnson, he seemed to me the only one gifted with this faculty. I recollect sitting with him and Mr. Seward over a log fire in the White House (the Federal fort and Gen. Lee's dismantled villa seen from the windows across the Potomac), a few hours only after intelligence had been received of the first disastrous battle of Chattanooga. The conversation at first centred on this event; but the cheerful temperament of these two remarkable men gradually translated it to other topics; and the President amused himself and us by some of those racy anecdotes which often convey more of practical truth than any dry reasoning can afford. The possession of this genial humor, unalloyed by any personal asperities, helped greatly that popularity which was mainly due to the honesty and consistency of the man in times of unforeseen and perilous trial to his country." On that visit Mr. Lincoln presented to Sir Henry the key of the seat of war in Virginia which he had used himself for reference in following the movements of the hostile armies, writing his own and his visitor's names on the margin. The habit of making a yearly journey to some foreign country seems to have been fixed upon Sir Henry Holland. On his last visit to this country he was in his eighty-second year, and he went as far as St. Paul, Minn., while he had already traversed 30,000 miles of this continent.

Among his medical works are *Medical Notes and Reflections*, which has been reprinted in the United States, and *Mental Physiology*. Lady Holland, in 1855, published a life of her father, Rev. Sydney Smith.

MARRIAGES.

RAHAUSER-HAYS.—On Thursday evening, September 25, 1873, at Southbank, the residence of the bride's father, Mr. Jacob Hays, by the Rev. James Kirk, George G. Rahausser, M. D., and Miss Minnie Hays, both of the South Side, Pittsburg.

STEARNS-LYON.—November 5th, at the residence of the bride's parents, by the Rev. Mr. Catlin, of Northumberland, J. A. Stearns and Miss Sallie Lyon, daughter of Dr. Thos. Lyon, Williamsport, Penna.

DEATHS.

MORRIS.—Died, in West Pittston, Luzerne Co., Pa., November 5th, Charles Morris, eldest son of Dr. John Morris, of Orange, Luzerne Co., Pa., aged thirty-two years.